



ILWS Activities AUSTRIA



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Cluster/ILWS relevant workshops



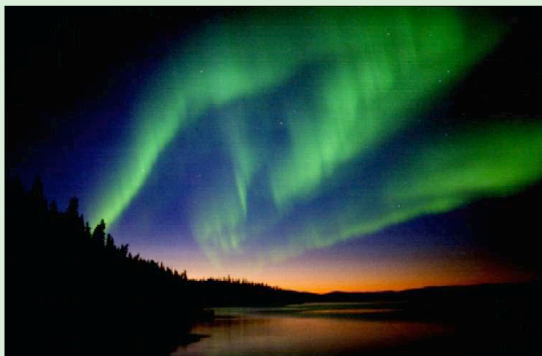
EUROPLANET N3 Coordinated Earth-Based and Space-Based Observations activities:
Workshops on Ionosphere-Magnetosphere Coupling
of fast flows/flux ropes in the Earth's magnetotail

1st Meeting: Local process (Cluster/Double Star-Ground Based/IMAGE coordination) Aug. 30
Sep.1, 2006

2nd Meeting: Evolution of fast flows/flux ropes (THEMIS/CL/DSP/GB), early 2007

3rd Meeting: Substorms, coupling between global and local processes, late 2007

Ninth International Conference on Substorms



Ninth International Conference on Substorms

5 - 9 May 2008

to be held at

Schloss Seggau near Graz, Austria

Organised jointly by

the **Space Research Institute** of the **Austrian Academy of Sciences**, Austria,



N1: EuroPlaNet Management

M. Blanc, M. Dougherty, I. Muller-Wodarg



60 institutes from **17** EC countries
13 associate participants

Krupp, Matti
N2

Discipline
Working
Groups

Rucker, Miller
N3

Ground-/space-
based Observ.
Coordination

Zarnecki, Lebreton
N4

Outreach
Strategy

Dutuit, Szego

N5

Personnel
Exchange

Srama, Serote

N6

Meetings

Chanteur

N7

IDIS

Tool-oriented activities

Science-oriented activities

Activity N6: Meetings, conferences

Organisation of EuroPlaNet meetings during the project.

Upcoming Meeting:

EUROPLANET SCIENCE CONGRESS
ESTREL, Sept. 18 – 22, 2006
Berlin, Germany



Cluster/ILWS relevant workshops



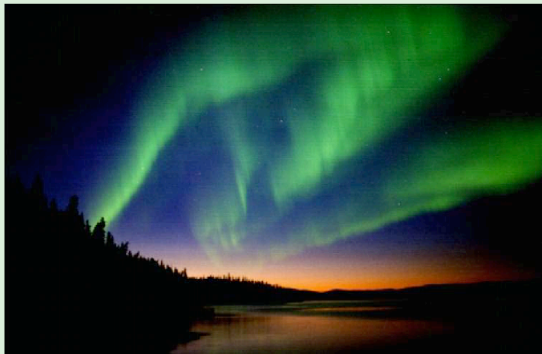
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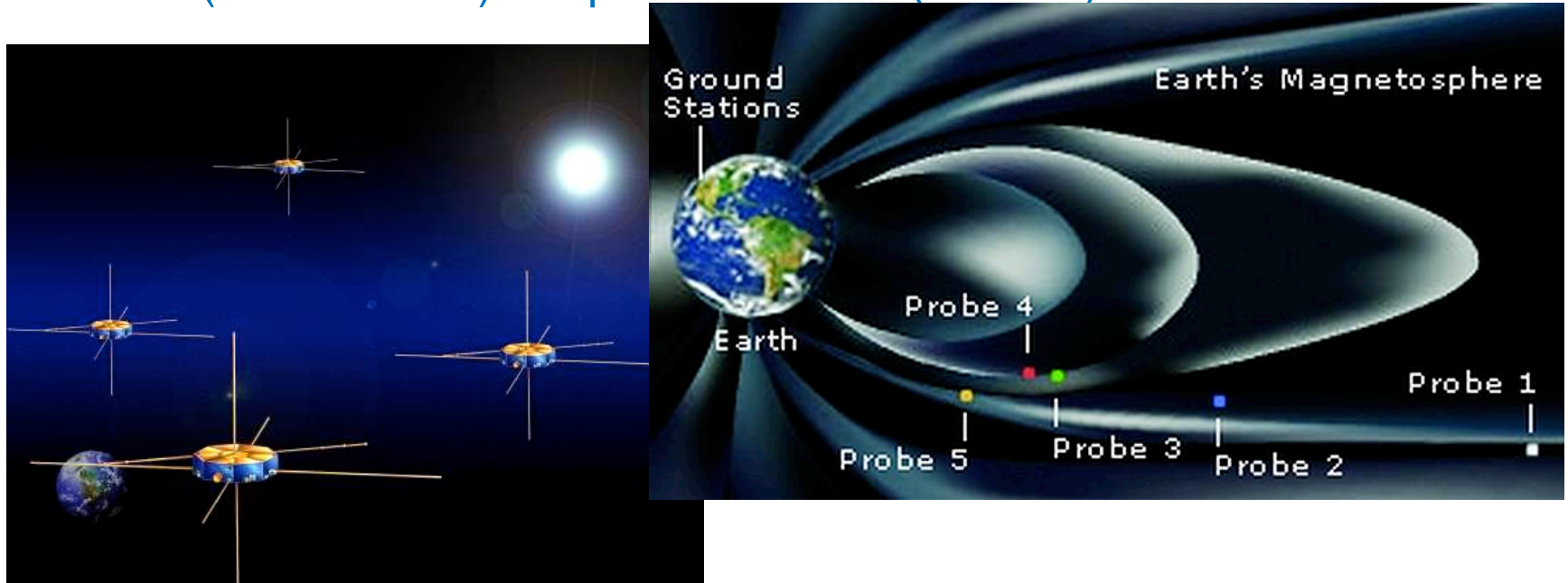
Schloss Seggau near Graz, Austria

Organised jointly by

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Participation in future NASA missions

- THEMIS (launch 2006) will probe **global** (and fluid) scale
- MMS (launch 2013) will probe **electron** (and ion) scale



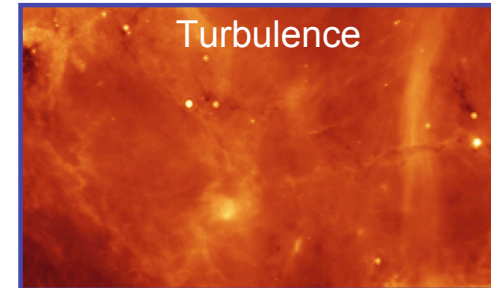
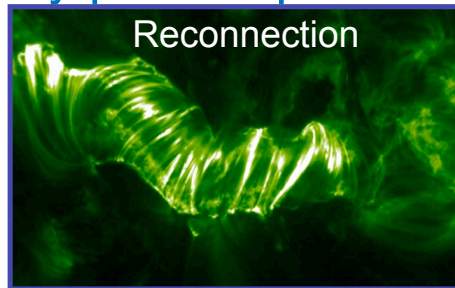
IWF contributions THEMIS: magnetometer, science def. team

MMS/SMART: potential control., electric field, science def. team

Participation in Chinese planned mission

KuaFu magnetometer team

Key plasma processes

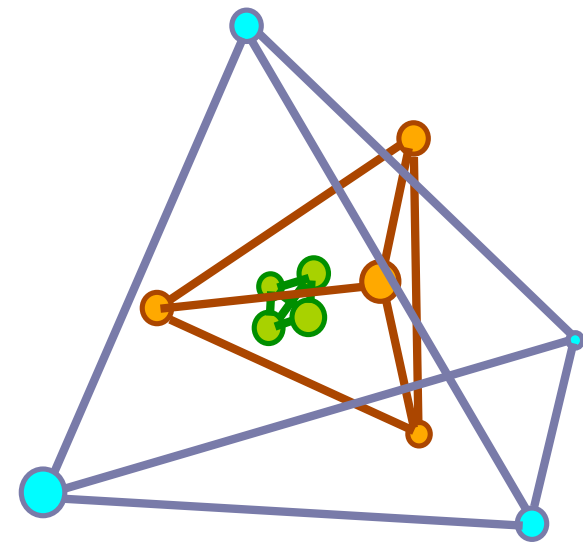


We need to measure :

- In 3D
- On 3 scales
(electron kinetic, ion kinetic, fluid)
- All 3 scales **simultaneously**

Requirements

- About 12 spacecraft (3 nested groups of 4)
- Earth orbit, passing through bowshock, magnetopause and magnetotail





Cross-Scale

multi-scale coupling in space plasmas



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4-5 Sept
London

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**Imperial College
London**

**Community Meeting, London, 4-5 September 2006 -
please attend and help to shape the Cross-Scale
mission**

The Cross-Scale community

The Cross-Scale mission promises to provide significant advances in our understanding of key plasma phenomena which are of relevance to a wide range of scientists working in fundamental plasma physics, solar system physics, astrophysics and terrestrial plasma physics.

Cross-Scale core members

A small number of scientists have been studying the Cross-Scale concept and have written the [Science Priorities Document](#). These are, in alphabetical order:

- S. Barabash (Swedish Institute for Space Physics, Kiruna, Sweden)
- W. Baumjohann (Space Research Institute, Graz, Austria)
- L. Blomberg (Royal Institute of Technology, Stockholm, Sweden)
- P. Canu (CETP/CNRS/UVSQ, Velizy, France)
- M. Fujimoto (Tokyo Institute of Technology, Tokyo, Japan)
- K.-H. Glassmeier (Institut für Geophysik und erdsterrestrische Physik, Braunschweig, Germany)
- T. Horbury (Imperial College London, UK)
- H. Koskinen (Finnish Meteorological Institute, Helsinki, Finland)
- P. Louarn (CNRS/CESR, Toulouse, France)
- M. Maruccci (Istituto di Fisica dello Spazio Interplanetario, Rome, Italy)
- R. Nakamura (Space Research Institute, Graz, Austria)
- C. Owen (University College London, UK)
- T. Pulkkinen (Finnish Meteorological Institute, Finland)
- A. Roux (CETP/CNRS/UVSQ, Velizy, France)
- J.-A. Sauvaud (CESR/CNRS, Toulouse, France)
- S. Schwartz (Imperial College London, UK)
- K. Svenes (Norwegian Defence Research Establishment, Kjeller, Norway)
- A. Vaivads (Swedish Institute of Space Physics, Uppsala, Sweden)

World-wide community

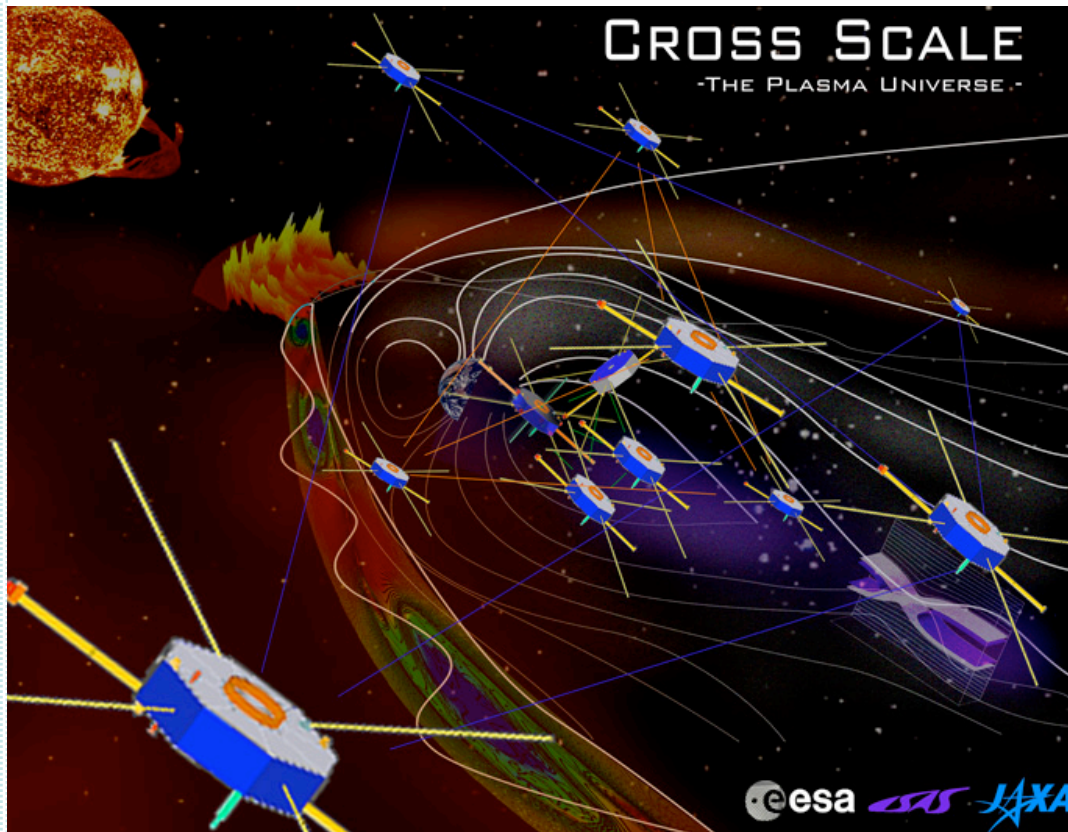
We expect the Cross-Scale mission concept to be attractive to

- Science Priority Document released (May 2006):
- Based on the above documents, ESA's Science Payload and Advanced Concepts Office are studying the Cross-Scale concept
- Web-site opened in Imperial College
<http://www.cross-scale.org/>
- Community meeting in Sep. 4-5, 2006, London.
- to prepare for the AO from ESA

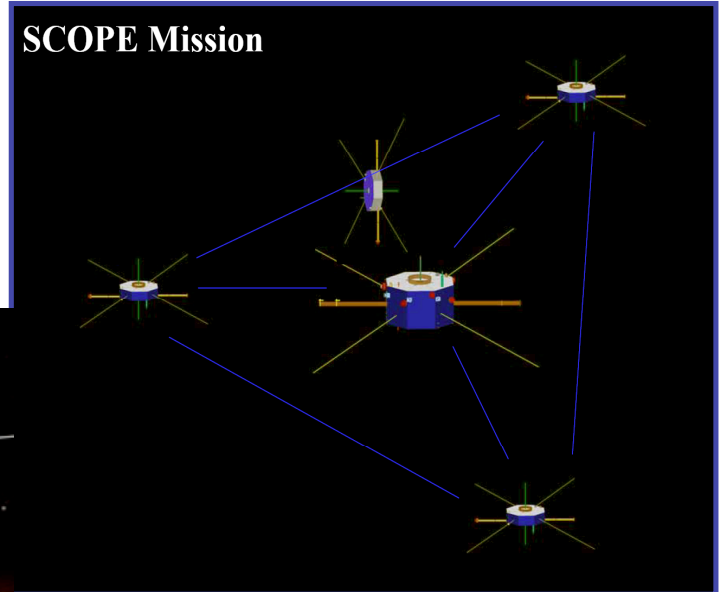
Cross Scale and SCOPE



Many similarities to
JAXA SCOPE mission



SCOPE Mission



Opportunity of a joint
ESA/JAXA Cross-
Scale/SCOPE mission
as ESA's Cosmic Vision
2015-2025 programme !



Further activities



Calibration of
radio wave antenna system

STEREO
RESONANCE
SOLAR ORBITER